

NEWS

The Evergreen State College
Olympia, Washington 98501

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for further information
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Students from The Evergreen State College have been awarded two grants totaling more than \$30,000 from the National Science Foundation in the annual Student Originated Studies competition.

The awards will finance student research on the reproductive success of harbor seal populations in Puget Sound and on heavy metal concentrations found in marine organisms near Tacoma.

The Evergreen grants are the only two awarded this year to colleges in the State of Washington by NSF's Student Originated Studies program, which supports undergraduate research. NSF reports that Evergreen now has the highest ratio of awards received per grants submitted of any college or university in the nation.

The \$15,450 seal study will be conducted by Evergreen junior John Calambokidis with guidance from Faculty Biologist Dr. Steven Herman.

Working with seven other students, Calambokidis will gather data on the reproductive success rates of harbor seal populations in four locations in Puget Sound. Their research on the federally-protected mammals will attempt to answer questions raised by earlier studies linking the incidence of premature births and birth defects in harbor seals with the presence of chlorinated hydrocarbon residues.

Students will gather samples of the seals' food sources, including fish and mussels, and will also analyze portions of seal carcasses donated to them. Then, they'll compare the reproductive success rate with the levels of contaminants to which the seals are exposed.

Harbor seals are not yet an endangered species, Calambokidis notes, but their numbers may be decreasing.

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"They were hunted extensively and their carcasses brought a bounty until the 1960s," he says. "They were believed to be a threat to fisheries. The bounty was removed, but persons were still permitted to kill them until 1972 when the Marine Mammals Protection Act established protection for them."

The study will focus on seal populations in Hood Canal on Smith and the San Juan Islands, and in the extreme southern end of Puget Sound.

The \$14,800 heavy metals study will be based in and around Tacoma's Commencement Bay, with Evergreen sophomore Michael Price coordinating the research with guidance from Faculty Chemist Dr. Kaye V. Ladd.

Students will analyze levels of mercury, cadmium, zinc, lead, copper and arsenic found in marine organisms they gather in such places as public tidelands and sports fishing grounds.

They'll also collect fish and shell fish samples which are available to the public through commercial sources. At the same time, Evergreen researchers will conduct a social survey to find out what seafoods people consume and where they get them.

Then, students will attempt to correlate the social study with information on locations in the bay which have high levels of metal pollutants. In this way students may be able to estimate the amounts of heavy metals actually consumed by the public in the Tacoma area.

Work on their grant begins June 26 and continues through early September. The Commencement Bay area was selected, Price says, because earlier studies have indicated that salt water near Tacoma has higher levels of heavy metal pollutants than other areas of the sound.